Customer No. 24498
Attorney Docket No. PU020105
Office Action Date: January 9, 2008

Remarks/Arguments

Claims 1-24 are pending. Claims 1 to 20 have been rejected in the office action of January 9, 2008. Claims 1, 7 and 14 have been amended to more clearly and distinctly claim the subject matter that applicants regard as the invention. Claims 21 to 24 have been added. The new matter is believed to be added by the present amendment.

Re: Claims 1-12 and 14-19

Claims 1-2 and 14-19 are listed as being rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,490,001 issued to Shintani et al. (hereinafter, "Shintani"). However, it is believed that the reference should be to claims 1-12 and 14-19, and is treated as such below. For the reasons discussed below, applicants submit that the subject claims are not anticipated by the teachings of Shintani.

The present invention addresses the problem that in a digital television system, in order to perform a channel change, the receiver must first wait to receive program specific information data that are received via the incoming datastream before programming associated with a newly selected channel can be decoded and displayed. The program specific information must be extracted, and elements of the receiver must be configured based on this information in order to receive desired channel and begin decoding. The program specific information may include for example, program association table data, and program map table data. Page 1, line 31 to page 2, line 8; page 5, lines 24 to 28. Additionally the datastream may also include sequence headers that must be acquired before decoding can begin. Page 6, lines 12 to 13. The delay in acquiring the necessary program specific information and sequence headers may cause a delay in changing from one channel to another.

The present invention addresses this problem by providing for the **initiation of data caching operation immediately after a channel change event.** The caching operation enables incoming sequence header data to be cached so that it may be

found quickly after the program association table data and program map table data is captured and processed. Page 6, lines 26-32. Thus, a notable aspect of the invention is that the caching operation is initiated **upon** receiving a channel change event, rather than waiting to begin the caching operation until **after** the necessary information has been acquired from the datastream.

In that regard, claim 1 has been amended to recite:

"... **initiating caching** of an incoming datastream associated with a newly selected channel **in response to the channel change command**, the incoming datastream including program specific information ... transferring the cached data stream for decoding in response to the program specific information. (emphasis added)"

Claims 7 and 14 have been amended to recite similar features in an apparatus format. Applicants submit that nowhere does Shintani disclosure or suggest such an initiating caching feature, and thus, appending claims are not anticipated by the teachings of Shintani.

Shintani addresses the problem of a delay in channel change that may occur in an environment where the receiver can receive **both analog and digital television broadcasts**. See, for example, Field of the Invention section. The problem partially arises from the fact that a digital television receiver requires time for processing and the front section, MPEG decoding, conversion of the decoded data to a displayable format, and tuner section processing time. See column 1, lines 59 to 67. A further delay in the processing time may be required if the receiver must determine whether a selected channel is an analog channel or a digital channel. See column 2, lines 19 to 26.

Shintani addresses this problem by storing in a memory of the receiver equalizer coefficients to be supplied to a digital filter, and a channel map for storing identification information for enabling each of the channels selectable as a tuning target to be identified as a digital television broadcast channel or an analog television broadcast

channel. See column 2, lines 47 to 51, and column 3, lines 56 to 60. Storing the equalizer coefficients enables the receiver to quickly configure the digital filter necessary to receive the signals, and the channel map enables the receiver to quickly determine whether a selected channel is a digital channel or an analog channel. An example of a table storing equalizer coefficients is shown in figure 3A, and an example of a channel map is shown in figure 3B.

As shown in the flowcharts of, for example, figures 4, 6, 8, the information included in the channel map and the stored equalizer coefficients, are used to quickly determine whether a selected channel is a digital broadcast channel or an analog broadcast channel, and configure the receiver accordingly. Notably, the receiver uses **stored information** in order to configure the receiver. The receiver does not use information that's included within the **received data stream** in order to configure the receiver elements. As such, nowhere does Shintani disclose or suggest when or at what point the incoming datastream is cached to a memory device. Shintani does not disclose or suggest anything in this regard because the problem addressed by Shintani does not require the receiver to receive and acquire information within the datastream to configure the receiver.

In fact, the portions of Shintani cited by the examiner as disclosing the caching feature is unrelated to the caching feature recited in the amended claims. In alleging that Shintani discloses this feature, the examiner refers to column 6, lines 16 to 18. That portion of Shintani states: "the apparatus according to the third aspect of the invention may also comprise a channel map memory for storing identification information." This refers to the channel map that is stored within the receiver for quickly identifying whether a selected channel is a digital broadcast channel or an analog broadcast channel. The channel map memory is not stored or cached in a memory of the receiver in response to a channel change command. In fact, Shintani presumably stores this channel map within a memory of the receiver at all times so that this data is accessible at all time. Therefore, the storing of the channel map in the receiver of Shintani is totally unrelated to the recited caching step.

Further, the examiner refers to element S105 as corresponding to the step of finding Program specific information included within the incoming datastream. In fact, step S105, as shown in figure 4, refers to determining whether a marker bit in the channel map indicates that a selected channel is an analog broadcast channel or a digital broadcast channel. The marker bit is shown, for example in figure 3B, and is shown to be included as part of the channel map. As mentioned above, the channel map is stored in a memory of the receiver and is not derived from the incoming datastream. In Particular, the channel map is not stored, or cached, in response to a channel change command. Rather, the channel map is stored within the receiver in the channel map memory section 332.

For at least the reasons discussed above, applicants submit that Shintani fails to disclose or submitted each and every limitation of the amended claims, and thus amended claims 1, 7 and 14, and the claims that depend there from, are not anticipated by the teachings of Shintani.

Re: Claims 13 and 20

Claims 13 and 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Shintani. Applicants respectfully traverse this rejection for at least the same reasons pointed out above in conjunction with independent claims 1, 7 and 14 since Shintani fails to teach or suggest the solution for reducing channel change delay as defined by those independent claims (from which claims 13 and 20 depend). Accordingly, withdrawal of the rejection is respectfully requested.

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Conclusion

In view of the foregoing remarks/arguments and accompanying amendments, the Applicants believe this application stands in condition for allowance. Accordingly, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the Applicants' attorney at (609) 734-6815, so that a mutually convenient date and time for a telephonic interview may be scheduled. No fee is believed due. However, if a fee is due, please charge the fee to Deposit Account 07-0832.

Respectfully submitted,

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